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March 3, 2006

VIA HAND DELIVERY

Ms. LaDonna Castañuela
TCEQ Chief Clerk
12015 Park 35 Circle
Bldg. F, 1st Floor
Austin, TX 78767

Re: Synagro of Texas-CDR, Inc. Permit No. WQ0004674000

Dear Ms. Castañuela:

Please accept this letter on behalf of Synagro of Texas-CDR, Inc. (Synagro) as an application for a minor amendment to the above-referenced permit. There are four sets of attached pages, one set for each separate field included in the above-referenced permit. Within each set are pages numbered 8 and 9 that are intended to replace pages 8 and 9 of Appendix A of the application materials incorporated into the current permit. Also included within each set is a page labeled "Addition to Chapter 4 of the Sludge Management Plan" that is intended to be inserted at the end of Chapter 4 of the Sludge Management Plan. The intent of this amendment and the attachments enclosed herein is to correct calculations within the above-referenced permit and to reduce the maximum limits on the agronomic loading rate for Field 3. Field 3 is currently permitted to receive 8.3 tons/acre/year of biosolids. Synagro wishes to amend its permit to reduce the allowable amount to 8.12 tons/acre/year. The revised calculations indicate no need to revise the agronomic loading rates for the Fields 1, 2, or 4 as the newly calculated amounts are higher than those currently permitted.

Section 305.62(a) of the TCEQ's rules provide that a "change in a term, condition, or provision of a permit requires an amendment...." Section 305.62(b) adds that an "application for amendment shall include all requested changes to the permit." Synagro is of the opinion that the amendment as proposed is "minor" in accordance with §305.62(c)(2). That section provides that a "minor amendment is an amendment to improve or maintain the permitted quality or method of disposal of waste, or injection of fluid if there is neither a significant increase of the quantity of waste or fluid to be discharged or injected nor a material change in the pattern or place of discharge of injection. A minor amendment includes any other change to a permit issued under

this chapter that will not cause or relax a standard or criterion which may result in a potential deterioration of quality of water in the state...." Reducing the application rate for Field 3 and maintaining the application rate for the remaining fields would clearly not cause or relax a standard or criterion which may result in water-quality deterioration.

Thank you for your attention to this matter.

Sincerely,

for Chesley N. Blevins
Attorney for Synagro

Enclosure

ADDITION TO
Chapter 4 of the Sludge management Plan
(Land Application Procedures)
Field #1

Synagro-CDR Permit #0004674
Vance Duncan (Landowner) Date: 02/19/06

FIELD MANAGEMENT

CROP	YIELD
Costal Bermudagrass 3 Hay cuttings and heavy grazing	8 tons per acre per year

NUTRIENT REQUIREMENTS (Reference USDA-NRCS Agricultural Waste Management Field Handbook – Part 651 – Chapter 6 Table 6-6)

Coastal Bermudagrass 8 tons = 16,000 lbs X 1.88%	301 lbs Nitrogen/acre/year
Total Nitrogen Required	301 lbs Nitrogen/acre/year
Available Nitrogen in Soil Test	10bs/acre
Additional Nitrogen Required	291 lbs/acre/year

NOTE: Calculations based on Soil Samples Numbers 1-1 and 1-2 the composite samples with the highest Nitrate Value of 2 ppm form 0-6 inches and <1 ppm from 6-24 inches.

APPLICATION OF BIOSOLIDS

Three (3) applications annually	
1) 100 lbs Nitrogen per acre – Early Spring	3.09 tons sludge/acre
2) 100 lbs Nitrogen per acre – Early Summer	3.09 tons sludge/acre
3) 91 lbs Nitrogen per acre – Late Summer	2.81 tons sludge/acre
Annual Total 291 lbs Nitrogen per year/acre	8.99 tons sludge/acre

Step 2 - Soil Test Analysis and Fertilizer Recommendations

Note: Please include a fertilizer recommendation from the local County Extension Service for determining the nutrient needed by the specified crop(s).

Intended Crop(s): COASTAL BERMUDA HAY PRODUCTION

Yield Goal (s): 8 tons in 3 cuttings pH: 5.98

	N (lbs./acre)
A. Nutrient needed by crop for specific yield goal **	301
B. Nutrient available in soil [=2 x NO_3-N(ppm)(0-6" soil depth)+6 x NO_3-N(ppm)(6-24" soil depth)]*	10
C. Nutrient amount still needed [=Nutrient needed-Nutrient available] (enter this amount in Step 4A.)	291

**Please provide the means of determining these values.
Refer to Lab Analysis of Certified Lab Company

Step 3 - Calculate the Plant Available Nitrogen (PAN) Provided by the Sludge

(Use the values for Total N,NH_4-N and NO_3-N from Step 1)

A. Organic Nitrogen = Total N - (NH4-N) - (NO3-N) =**4.50-0.54-0.23=3.73 X 20=74.60**	74.60
(Multiply the percent values in Appendix C for PAN) x 30%	0.30
	22.38
B. Ammonium Nitrogen (NH4-N) x V=	+ 5.40
Use Volatization factor (V) = 0.5 if sludge is left on soil surface: Use Volatization factor (V) = 1.0 if sludge is worked into soil.	
C. Nitrate Nitrogen (NO3-N) =	+ 4.60
D. 3A + 3B + 3C = (enter this amount in Step 4B.) Total PAN	32.380

Step 4 - Calculate Maximum Sludge Application Rate Based on Crop Nitrogen Needs (SAR_N)

A. Enter the amount from Step 2. Nitrogen amount still needed.	291 lbs/acre/year
B. Enter amount from Step 3D. Total PAN in sludge:	32.380 lbs/ton
C. Sludge Application Rate (SAR_N) = A ÷ B = ____ ÷ ____ =	8.99 tons/acre/year

FIELD 1

STEP 5 - CALCULATE MAXIMUM SLUDGE APPLICATION RATE BASED ON METALS (SAR_M)

	A	B	C	D	E	F
	METAL LIMITS (lbs/acre)	MAX METAL LOADING/YR (lbs/ac/yr)	IN SLUDGE (lbs/ton)	APPLIED YEARLY AT(SARN) (tons/acre/yr)	YEARLY AT(SARM) (tons/acre/yr)	LOADING RATE (tons/acre)
METAL	Appendix C	Appendix C	(Step 1)	(C x SARN)	(B ÷ C)	(A ÷ C)
Arsenic	36	1.8	0.01726	0.16	104.29	2085.75
Cadmium	35	1.7	0.00892	0.08	190.58	3923.77
Chromium	2677	134	0.3576	3.37	374.72	7486.02
Copper	1339	67	0.59824	5.64	112.00	2238.23
Lead	268	13	0.11934	1.12	108.93	2245.68
Mercury	15	0.76	0.00162	0.02	469.14	9259.26
Molybdenum	Monitor	Monitor	0.01374	0.13		
Nickel	375	18.7	0.0488	0.46	383.20	7684.43
Selenium	89	4.5	0.03004	0.28	149.80	2962.72
Zinc	2500	125	1.4916	14.05	83.80	1676.05
Other						

Note: For each metal, if the value in Column B is greater than the value in Column D (B>D), the SAR_N dictates the maximum sludge application rate. Therefore, indicate N/A in Column E. If however, the value in Column B is less than the value in Column D (B<D), then the SAR_M dictates the maximum sludge application rate and the value is E = B ÷ C.

STEP 6 - CALCULATE CUMULATIVE LOADING RATE

A. Maximum allowable cumulative sludge loading rate (lowest value in Step 5, Column F): 1970.58 tons/acre

B. Previous applications of sludge: 0 tons/acre

C. Remaining sludge application rate to reach metal limits (6A - 6B) 1970.58 tons/acre

D. Maximum allowable sludge application rate (Lowest value of Step 4C and Step 5 Column E) 8.99 tons/acre/year

E. Years remaining to reach the maximum cumulative loading (6C ÷ 6D) 219.20 years

FIELD 1

ADDITION TO
Chapter 4 of the Sludge management Plan
(Land Application Procedures)
Field #2

Synagro-CDR Permit #0004674
Vance Duncan (Landowner) Date: 02/19/06

FIELD MANAGEMENT

CROP	YIELD
Costal Bermudagrass 3 Hay cuttings and heavy grazing	8 tons per acre per year

NUTRIENT REQUIREMENTS (Reference USDA-NRCS Agricultural Waste Management Field Handbook – Part 651 – Chapter 6 Table 6-6)

Coastal Bermudagrass 8 tons = 16,000 lbs X 1.88%	301 lbs Nitrogen/acre/year
Total Nitrogen Required	301 lbs Nitrogen/acre/year
Available Nitrogen in Soil Test	32bs/acre
Additional Nitrogen Required	269 lbs/acre/year

NOTE: Calculations based on Soil Samples Numbers 5-1 and 5-2 the composite samples with the highest Nitrate Value of 4 ppm form 0-6 inches and 4 ppm from 6-24 inches.

APPLICATION OF BIOSOLIDS

Three (3) applications annually	
1) 100 lbs Nitrogen per acre – Early Spring	3.09 tons sludge/acre
2) 85 lbs Nitrogen per acre – Early Summer	2.63 tons sludge/acre
3) 84 lbs Nitrogen per acre – Late Summer	2.59 tons sludge/acre
Annual Total 269 lbs Nitrogen per year/acre	8.31 tons sludge/acre

Step 2 - Soil Test Analysis and Fertilizer Recommendations

Note: Please include a fertilizer recommendation from the local County Extension Service for determining the nutrient needed by the specified crop(s).

Intended Crop(s): COASTAL BERMUDA HAY PRODUCTION

Yield Goal (s): 8 tons in 3 cuttings pH: 6.68

	N (lbs./acre)
A. Nutrient needed by crop for specific yield goal **	301
B. Nutrient available in soil [=2 x NO_3-N(ppm)(0-6" soil depth)+6 x NO_3-N(ppm)(6-24" soil depth)]*	32
C. Nutrient amount still needed [=Nutrient needed-Nutrient available] (enter this amount in Step 4A.)	269

**Please provide the means of determining these values.
Refer to Lab Analysis of Certified Lab Company

Step 3 - Calculate the Plant Available Nitrogen (PAN) Provided by the Sludge

(Use the values for Total N,NH_4-N and NO_3-N from Step 1)

A. Organic Nitrogen = Total N - (NH4-N) - (NO3-N) =**4.50-0.54-0.23=3.73 X 20=74.60**		74.60
(Multiply the percent values in Appendix C for PAN) x 30%		0.30
		22.38
B. Ammonium Nitrogen (NH4-N) x V=	+	5.40
Use Volatization factor (V) = 0.5 if sludge is left on soil surface:		
Use Volatization factor (V) = 1.0 if sludge is worked into soil.		
C. Nitrate Nitrogen (NO3-N) =	+	4.60
D. 3A + 3B + 3C = (enter this amount in Step 4B.) Total PAN		32.380

Step 4 - Calculate Maximum Sludge Application Rate Based on Crop Nitrogen Needs (SAR_N)

A. Enter the amount from Step 2. Nitrogen amount still needed.	269	lbs/acre/year
B. Enter amount from Step 3D. Total PAN in sludge:	32.380	lbs/ton
C. Sludge Application Rate (SAR_N) = A ÷ B = ____ ÷ ____ =	8.31	tons/acre/year

FIELD 2

STEP 5 - CALCULATE MAXIMUM SLUDGE APPLICATION RATE BASED ON METALS (SAR_M)

	A	B	C	D	E	F
	METAL LIMITS (lbs/acre)	MAX METAL LOADING/YR (lbs/ac/yr)	IN SLUDGE (lbs/ton)	APPLIED YEARLY AT(SARN) (tons/acre/yr)	YEARLY AT(SARM) (tons/acre/yr)	LOADING RATE (tons/acre)
METAL	Appendix C	Appendix C	(Step 1)	(C x SARN)	(B ÷ C)	(A ÷ C)
Arsenic	36	1.8	0.01726	0.16	104.29	2085.75
Cadmium	35	1.7	0.00892	0.08	190.58	3923.77
Chromium	2677	134	0.3576	3.37	374.72	7486.02
Copper	1339	67	0.59824	5.64	112.00	2238.23
Lead	268	13	0.11934	1.12	108.93	2245.68
Mercury	15	0.76	0.00162	0.02	469.14	9259.26
Molybdenum	Monitor	Monitor	0.01374	0.13		
Nickel	375	18.7	0.0488	0.46	383.20	7684.43
Selenium	89	4.5	0.03004	0.28	149.80	2962.72
Zinc	2500	125	1.4916	14.05	83.80	1676.05
Other						

Note: For each metal, if the value in Column B is greater than the value in Column D (B>D), the SAR_N dictates the maximum sludge application rate. Therefore, indicate N/A in Column E. If however, the value in Column B is less than the value in Column D (B<D), then the SAR_M dictates the maximum sludge application rate and the value is E = B ÷ C.

STEP 6 - CALCULATE CUMULATIVE LOADING RATE

A. Maximum allowable cumulative sludge loading rate (lowest value in Step 5, Column F): 1970.58 tons/acre

B. Previous applications of sludge: 0 tons/acre

C. Remaining sludge application rate to reach metal limits (6A - 6B) 1970.58 tons/acre

D. Maximum allowable sludge application rate (Lowest value of Step 4C and Step 5 Column E) 8.31 tons/acre/year

E. Years remaining to reach the maximum cumulative loading (6C ÷ 6D) 237.13 years

FIELD 2

ADDITION TO
Chapter 4 of the Sludge management Plan
(Land Application Procedures)
Field #3

Synagro-CDR Permit #0004674
Vance Duncan (Landowner) Date: 02/19/06

FIELD MANAGEMENT

CROP	YIELD
Costal Bermudagrass 3 Hay cuttings and heavy grazing	8 tons per acre per year

NUTRIENT REQUIREMENTS (Reference USDA-NRCS Agricultural Waste Management Field Handbook – Part 651 – Chapter 6 Table 6-6)

Coastal Bermudagrass 8 tons = 16,000 lbs X 1.88%	301 lbs Nitrogen/acre/year
Total Nitrogen Required	301 lbs Nitrogen/acre/year
Available Nitrogen in Soil Test	38 lbs/acre
Additional Nitrogen Required	263 lbs/acre/year

NOTE: Calculations based on Soil Samples Numbers 6-1 and 6-2 the composite samples with the highest Nitrate Value of 4 ppm form 0-6 inches and 5 ppm from 6-24 inches.

APPLICATION OF BIOSOLIDS

Three (3) applications annually	
1) 100 lbs Nitrogen per acre – Early Spring	3.09 tons sludge/acre
2) 85 lbs Nitrogen per acre – Early Summer	2.63 tons sludge/acre
3) 78 lbs Nitrogen per acre – Late Summer	2.40 tons sludge/acre
Annual Total 263 lbs Nitrogen per year/acre	8.12 tons sludge/acre

Step 2 - Soil Test Analysis and Fertilizer Recommendations

Note: Please include a fertilizer recommendation from the local County Extension Service for determining the nutrient needed by the specified crop(s).

Intended Crop(s): COASTAL BERMUDA HAY PRODUCTION

Yield Goal (s): 8 tons in 3 cuttings pH: 7.85

	N (lbs./acre)
A. Nutrient needed by crop for specific yield goal **	301
B. Nutrient available in soil [=2 x NO_3-N(ppm)(0-6" soil depth)+6 x NO_3-N(ppm)(6-24" soil depth)]*	38
C. Nutrient amount still needed [=Nutrient needed-Nutrient available] (enter this amount in Step 4A.)	263

**Please provide the means of determining these values.
Refer to Lab Analysis of Certified Lab Company

Step 3 - Calculate the Plant Available Nitrogen (PAN) Provided by the Sludge

(Use the values for Total N,NH_4-N and NO_3-N from Step 1)

A. Organic Nitrogen = Total N - (NH4-N) - (NO3-N) =**4.50-0.54-0.23=3.73 X 20=74.60**		74.60
(Multiply the percent values in Appendix C for PAN) x 30%		0.30
		22.38
B. Ammonium Nitrogen (NH4-N) x V=	+	5.40
Use Volatization factor (V) = 0.5 if sludge is left on soil surface:		
Use Volatization factor (V) = 1.0 if sludge is worked into soil.		
C. Nitrate Nitrogen (NO3-N) =	+	4.60
D. 3A + 3B + 3C = (enter this amount in Step 4B.) Total PAN		32.380

Step 4 - Calculate Maximum Sludge Application Rate Based on Crop Nitrogen Needs (SAR_N)

A. Enter the amount from Step 2. Nitrogen amount still needed.	263	lbs/acre/year
B. Enter amount from Step 3D. Total PAN in sludge:	32.380	lbs/ton
C. Sludge Application Rate (SAR_N) = A ÷ B = ____ ÷ ____ =	8.12	tons/acre/year

FIELD 3

STEP 5 - CALCULATE MAXIMUM SLUDGE APPLICATION RATE BASED ON METALS (SAR_M)

	A	B	C	D	E	F
	METAL LIMITS (lbs/acre)	MAX METAL LOADING/YR (lbs/ac/yr)	IN SLUDGE (lbs/ton)	APPLIED YEARLY AT(SARN) (tons/acre/yr)	YEARLY AT(SARM) (tons/acre/yr)	LOADING RATE (tons/acre)
METAL	Appendix C	Appendix C	(Step 1)	(C x SARN)	(B ÷ C)	(A ÷ C)
Arsenic	36	1.8	0.01726	0.16	104.29	2085.75
Cadmium	35	1.7	0.00892	0.08	190.58	3923.77
Chromium	2677	134	0.3576	3.37	374.72	7486.02
Copper	1339	67	0.59824	5.64	112.00	2238.23
Lead	268	13	0.11934	1.12	108.93	2245.68
Mercury	15	0.76	0.00162	0.02	469.14	9259.26
Molybdenum	Monitor	Monitor	0.01374	0.13		
Nickel	375	18.7	0.0488	0.46	383.20	7684.43
Selenium	89	4.5	0.03004	0.28	149.80	2962.72
Zinc	2500	125	1.4916	14.05	83.80	1676.05
Other						

Note: For each metal, if the value in Column B is greater than the value in Column D (B>D), the SAR_N dictates the maximum sludge application rate. Therefore, indicate N/A in Column E. If however, the value in Column B is less than the value in Column D (B<D), then the SAR_M dictates the maximum sludge application rate and the value is E = B ÷ C.

STEP 6 - CALCULATE CUMULATIVE LOADING RATE

A. Maximum allowable cumulative sludge loading rate (lowest value in Step 5, Column F): 1970.58 tons/acre

B. Previous applications of sludge: 0 tons/acre

C. Remaining sludge application rate to reach metal limits (6A - 6B) 1970.58 tons/acre

D. Maximum allowable sludge application rate (Lowest value of Step 4C and Step 5 Column E) 8.12 tons/acre/year

E. Years remaining to reach the maximum cumulative loading (6C ÷ 6D) 242.68 years

FIELD 3

ADDITION TO
Chapter 4 of the Sludge management Plan
(Land Application Procedures)
Field #4

Synagro-CDR Permit #0004674
Vance Duncan (Landowner) Date: 02/19/06

FIELD MANAGEMENT

CROP	YIELD
Costal Bermudagrass 3 Hay cuttings and heavy grazing	8 tons per acre per year

NUTRIENT REQUIREMENTS (Reference USDA-NRCS Agricultural Waste Management Field Handbook – Part 651 – Chapter 6 Table 6-6)

Coastal Bermudagrass 8 tons = 16,000 lbs X 1.88%	301 lbs Nitrogen/acre/year
Total Nitrogen Required	301 lbs Nitrogen/acre/year
Available Nitrogen in Soil Test	8 lbs/acre
Additional Nitrogen Required	293 lbs/acre/year

NOTE: Calculations based on Soil Samples Numbers 7-1 and 7-2 the composite samples with the highest Nitrate Value of 1 ppm form 0-6 inches and 1 ppm from 6-24 inches.

APPLICATION OF BIOSOLIDS

Three (3) applications annually	
1) 100 lbs Nitrogen per acre – Early Spring	3.09 tons sludge/acre
2) 97 lbs Nitrogen per acre – Early Summer	3.00 tons sludge/acre
3) 96 lbs Nitrogen per acre – Late Summer	2.96 tons sludge/acre
Annual Total 293 lbs Nitrogen per year/acre	9.05 tons sludge/acre

Step 2 - Soil Test Analysis and Fertilizer Recommendations

Note: Please include a fertilizer recommendation from the local County Extension Service for determining the nutrient needed by the specified crop(s).

Intended Crop(s): COASTAL BERMUDA HAY PRODUCTION

Yield Goal (s): 8 tons in 3 cuttings pH: 6.45

	N (lbs./acre)
A. Nutrient needed by crop for specific yield goal **	301
B. Nutrient available in soil [=2 x NO_3-N(ppm)(0-6" soil depth)+6 x NO_3-N(ppm)(6-24" soil depth)]*	8
C. Nutrient amount still needed [=Nutrient needed-Nutrient available] (enter this amount in Step 4A.)	293

**Please provide the means of determining these values.
Refer to Lab Analysis of Certified Lab Company

Step 3 - Calculate the Plant Available Nitrogen (PAN) Provided by the Sludge

(Use the values for Total N,NH_4-N and NO_3-N from Step 1)

A. Organic Nitrogen = Total N - (NH4-N) - (NO3-N) =**4.50-0.54-0.23=3.73 X 20=74.60**	74.60
(Multiply the percent values in Appendix C for PAN) x 30%	0.30
	22.38
B. Ammonium Nitrogen (NH4-N) x V=	+ 5.40
Use Volatization factor (V) = 0.5 if sludge is left on soil surface: Use Volatization factor (V) = 1.0 if sludge is worked into soil.	
C. Nitrate Nitrogen (NO3-N) =	+ 4.60
D. 3A + 3B + 3C = (enter this amount in Step 4B.) Total PAN	32.380

Step 4 - Calculate Maximum Sludge Application Rate Based on Crop Nitrogen Needs (SAR_N)

A. Enter the amount from Step 2. Nitrogen amount still needed.	293 lbs/acre/year
B. Enter amount from Step 3D. Total PAN in sludge:	32.380 lbs/ton
C. Sludge Application Rate (SAR_N) = A ÷ B = ____ ÷ ____ =	9.05 tons/acre/year

FIELD 4

STEP 5 - CALCULATE MAXIMUM SLUDGE APPLICATION RATE BASED ON METALS (SAR_M)

	A	B	C	D	E	F
	METAL LIMITS (lbs/acre)	MAX METAL LOADING/YR (lbs/ac/yr)	IN SLUDGE (lbs/ton)	APPLIED YEARLY AT(SARN) (tons/acre/yr)	YEARLY AT(SARM) (tons/acre/yr)	LOADING RATE (tons/acre)
METAL	Appendix C	Appendix C	(Step 1)	(C x SARN)	(B ÷ C)	(A ÷ C)
Arsenic	36	1.8	0.01726	0.16	104.29	2085.75
Cadmium	35	1.7	0.00892	0.08	190.58	3923.77
Chromium	2677	134	0.3576	3.37	374.72	7486.02
Copper	1339	67	0.59824	5.64	112.00	2238.23
Lead	268	13	0.11934	1.12	108.93	2245.68
Mercury	15	0.76	0.00162	0.02	469.14	9259.26
Molybdenum	Monitor	Monitor	0.01374	0.13		
Nickel	375	18.7	0.0488	0.46	383.20	7684.43
Selenium	89	4.5	0.03004	0.28	149.80	2962.72
Zinc	2500	125	1.4916	14.05	83.80	1676.05
Other						

Note: For each metal, if the value in Column B is greater than the value in Column D (B>D), the SAR_N dictates the maximum sludge application rate. Therefore, indicate N/A in Column E. If however, the value in Column B is less than the value in Column D (B<D), then the SAR_M dictates the maximum sludge application rate and the value is E = B ÷ C.

STEP 6 - CALCULATE CUMULATIVE LOADING RATE

A. Maximum allowable cumulative sludge loading rate (lowest value in Step 5, Column F): 1970.58 tons/acre

B. Previous applications of sludge: 0 tons/acre

C. Remaining sludge application rate to reach metal limits (6A - 6B) 1970.58 tons/acre

D. Maximum allowable sludge application rate (Lowest value of Step 4C and Step 5 Column E) 9.05 tons/acre/year

E. Years remaining to reach the maximum cumulative loading (6C ÷ 6D) 217.74 years

FIELD 4